

May-22-12 3:01:22 PM

**Item ID:** D3195-041

**Accept**

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

**Item Name:** Bracket Assembly

**Start Date:** 22/05/2012      **Start Qty:** 10.00

**\*10\***

**Cust Item ID:**

**Required Date:** 05/06/2012      **Req'd Qty:** 10.00

**\*10\***

**Customer:**

**Reference:**

Approvals: Process Plan: MLS

Date: 12/05/22 Tooling:

Date:

Run Start \*NR1\*

**QC:**

Date:

**SPC (Y/N):**

Date:

Stop \*NR2\*

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 84755

**\*84755\***

Page 2

May-22-12 3:01:22 PM

Item ID: D3195-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bracket Assembly  
 Start Date: 22/05/2012 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 05/06/2012 Req'd Qty: 10.00 **\*10\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130	QC8- Inspect parts - second check	0.00	SL	12-06-05		(10)			
<b>*130*</b>									
QC	Memo	0.00							
Quality Control									

140	Chemical Conversion Coat per QSI005 4.1	0.00				10	76	126.5	
<b>*140*</b>									
HandFinish	Memo	0.00							
Hand Finishing									

150	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00				10X			M-F
<b>*150*</b>									12/26/26
Powdercoat	Memo	0.00							
Powder Coating									

START TIME: 12:00 FINISH TIME: 12:30 OVEN TEMPERATURE:

3200F 12:30

M121279

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Page 3

## Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 84755

**\*84755\***

Page 4

May-22-12 3:01:22 PM

Item ID: D3195-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bracket Assembly

Start Date: 22/05/2012 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 05/06/2012 Req'd Qty: 10.00 **\*10\*** Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 <b>*190*</b> Packaging Packaging	Identify as per dwg & Stock Location <b>246A</b>  Memo	0.00  0.00				<b>100</b>		<b>12/6/11</b>	
200 <b>*200*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00						<b>12/6/11</b>	

MC  
12-06-08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

May-22-12 3:01:25 PM

Page 1

Work Order ID: 84755

\*84755\*

Parent Item: D3195-041

\*D3195-041\*

Parent Item Name: Bracket Assembly

Start Date: 22/05/2012

Required Date: 05/06/2012

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A New Issue 05-11-08 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3195-5		Manufactured	No			100	Each	24.0000	1	10			

\*D3195-5\*

Pad

\*\*

(10) FF12-06-08

Location

Loc Qty

Loc Code

GA

24

83704

24

10

M6061T6B0.750X02.00  
0

Purchased No

170

f

21.3990

0.3

3.157895

\*M6061T6B0 750X02 000\*

\*\*

6061-T6 Bar .750 x 2.00

Location

Loc Qty

Loc Code

MAT002

21.399

100742

2.271

9 111448

6.219

9 119653

0.909

9 121660

12

1.70  
0.63  
0.95

PO 12/06/02

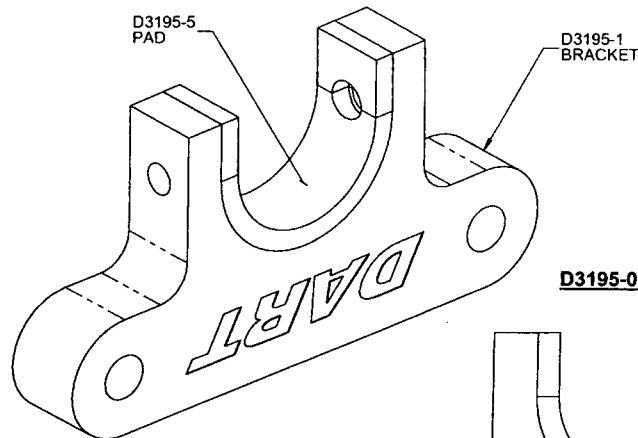
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

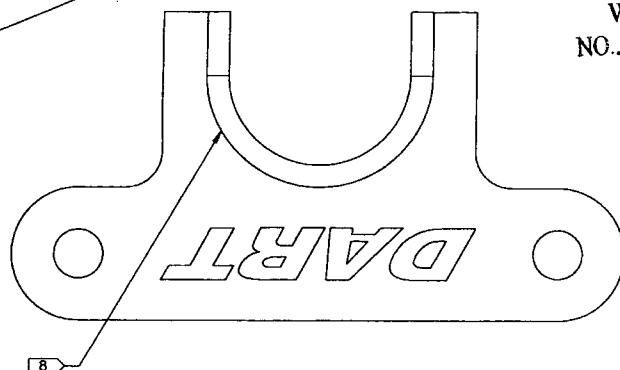
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3195-041 BRACKET**

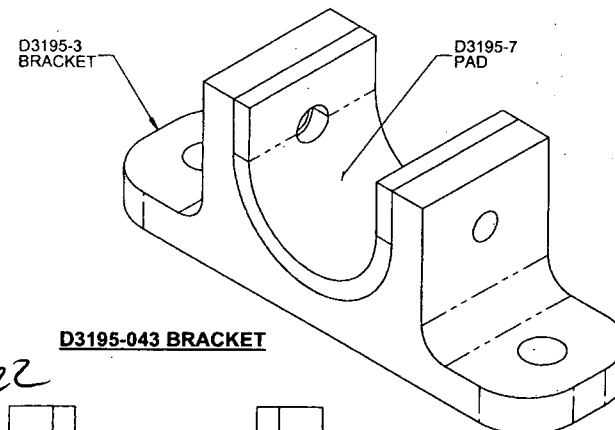


ITEM	QTY -041	P/N	DESCRIPTION
	X	D3195-041	BRACKET
1	1	D3195-1	BRACKET
2	1	D3195-5	PAD

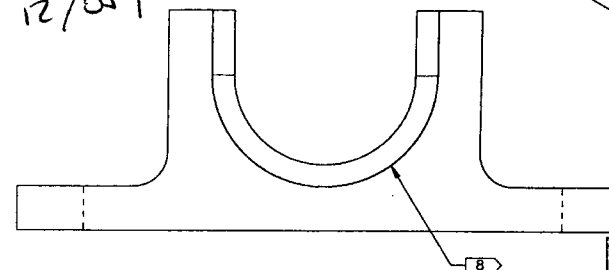
**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3195-04X" AND BATCH NUMBER "BXXXXX" PER QSI044 METHOD 6.1
- 7) WEIGHT: D3195-041: 0.15 lbs  
D3195-043: 0.14 lbs
- 8) BOND PAD TO BRACKET USING 3M SCOTCH-WELD HIGH PERFORMANCE 1300/1300L (OR EQUIVALENT)

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 84755 MLJ  
12/05/22



**D3195-043 BRACKET**



ITEM	QTY -043	P/N	DESCRIPTION
	X	D3195-043	BRACKET
1	1	D3195-3	BRACKET
2	1	D3195-7	PAD

RELEASED  
2012-04-30

B	- UPDATED DRAWING FORMAT. - ADDED NOTE 8, SHEET 1. - D3195-5 & D3195-7 DIMENSIONS EXTENSIVELY REVISED (B6-3, C3-3) - REF. PAR11-130		RP	12.04.13	
A	NEW ISSUE		CP	03.06.23	
REV.	DESCRIPTION		BY	DATE	
DESIGN	RP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	REV. B SHEET 1 OF 3 SCALE NTS		
DRAWN	RP				
CHECKED	A.P.				DRAWING NO.
MFG. APPR.	E				D3195
APPROVED	J.P.				TITLE
DE APPR.	CH				BRACKET
DATE	12.04.13				COPYRIGHT © 2003 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>

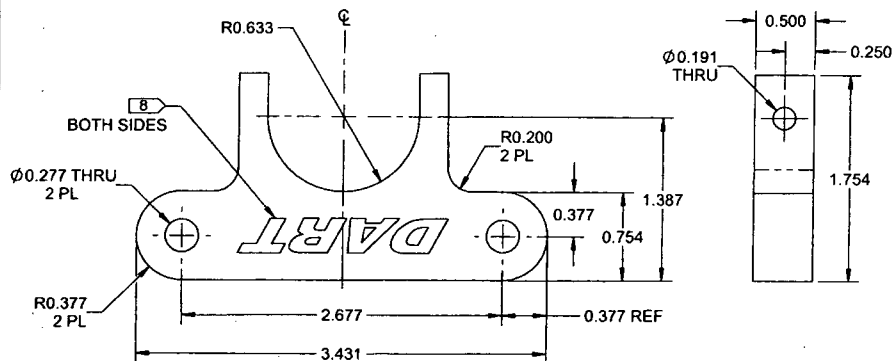
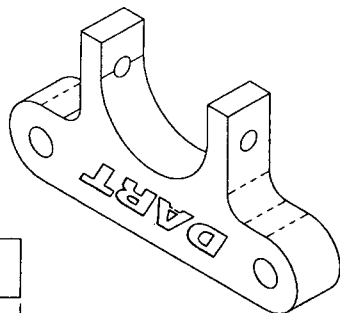
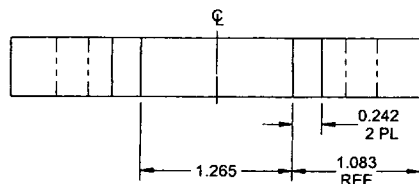
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

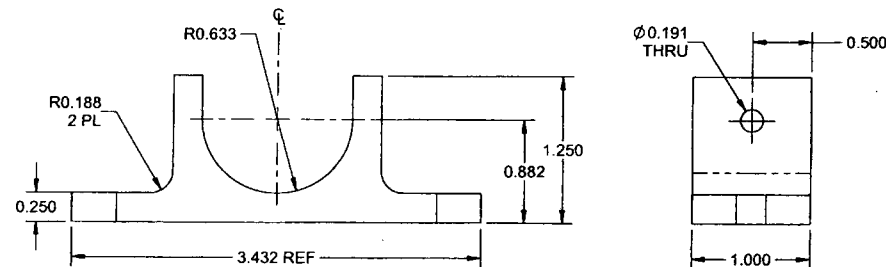
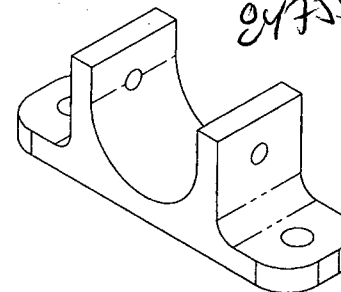
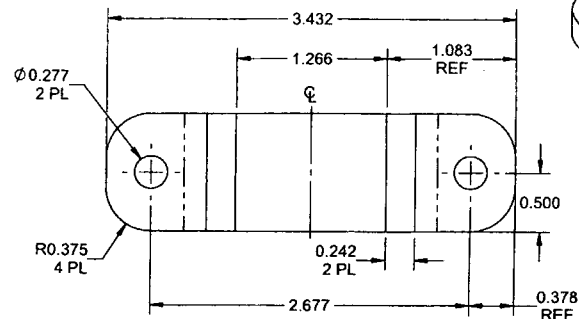
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3195-1 BRACKET**



**D3195-3 BRACKET**

**NOTES:**

- 1) MATERIAL: 6061-T6/T651 PER QQ-A-200/8 OR QQ-A-225/8 OR ASTM B211 OR ASTM B221  
REF. DART SPEC. M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D3195-1 0.15 lbs  
D3195-3 0.14 lbs
- 8) ENGRAVE DART LOGO AS SHOWN USING 0.28 HIGH X 0.005 DEEP LETTERING (TYPICAL BOTH SIDES)

DESIGN	RP	<b>DART AEROSPACE LTD</b>	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	A.P.	DRAWING NO.	REV. B
MFG. APPR.		<b>D3195</b>	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		<b>BRACKET</b>	NTS
DATE	12.04.13	COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

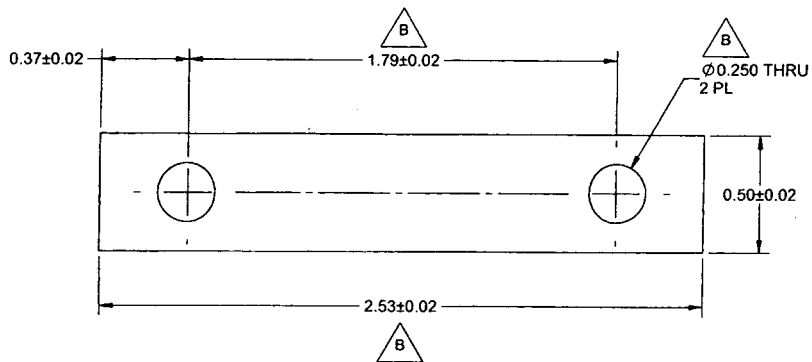
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

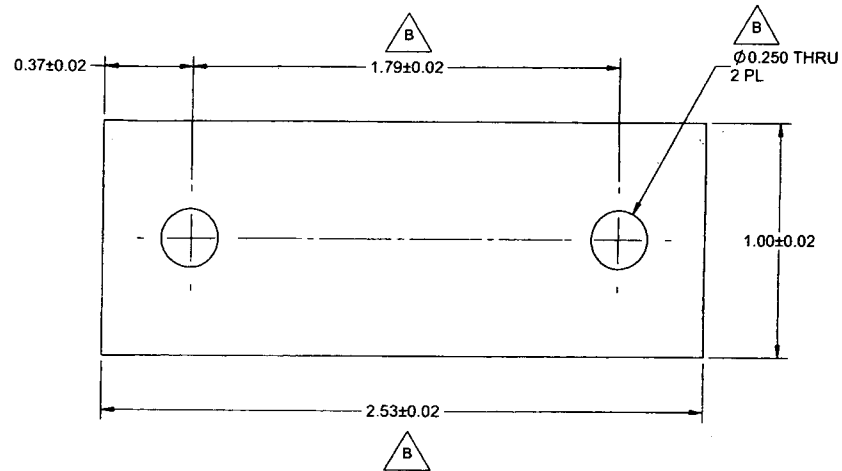
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

24755



**D3195-5 PAD**



**D3195-7 PAD**

RELEASED  
2012-04-30

**NOTES:**

- 1) MATERIAL: BLACK NEOPRENE SHEET, 1/8" THICK, 60 DUROMETER  
(REF DART SPEC M-NEO60-S.125)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: LESS THAN 0.01 lbs

DESIGN	RP	<b>DART AEROSPACE LTD</b>	
DRAWN	RP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG APPR.	<i>[Signature]</i>	<b>D3195</b>	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>BRACKET</b>	NTS
DATE	12.04.13	<small>           COPYRIGHT © 2003 BY DART AEROSPACE LTD            THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS            NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT            WRITTEN PERMISSION FROM DART AEROSPACE LTD.         </small>	

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>
<b>Description:</b>		<b>Part Number:</b>
<b>Inspection Dwg:</b>	<b>Rev:</b>	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.431	+/- .010	3.432	✓		FK-04	Vern.
2.677	+/- .010	2.677	✓		"	"
1.387	+/- .010	1.387	✓		"	"
.754	+/- .010	.754	✓		"	"
.377	+/- .010	.377	✓		"	"
1.265	+/- .010	1.265	✓		"	"
1.083	+/- .010	1.083	✓		31006	Height gauge.
R.633	+/- .030	.633	✓		FK-04	Vern.
R.200	+/- .030	.200	✓		rad gauge	
R.377	+/- .030	.377	✓		rad gauge	
Ø .277	+/- .004	.278	✓		FK-04	Vern.
.500	+/- .010	.502	✓		"	"
.250	+/- .010	.248	✓		"	"
1.754	+/- .010	1.755	✓		"	"
Ø .191	+ .005 - .001	.191	✓		"	"

<b>Measured by:</b> FK	<b>Audited by:</b> JL	<b>Preliminary Approval:</b>
<b>Date:</b> 12/06/05	<b>Date:</b> 12-06-05	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15